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A New Regional Price Index for Côte d'Ivoire Using Data from the International Comparisons Project

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and
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Data from a survey on household spending patterns are combined with price data from the International Comparisons Project to produce a regional price index deemed superior to previous estimates based solely on data from the Living Standards Survey.

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This paper — a product of the Poverty and Social Policy Division, Africa Technical Department — is part of the output of the research project "Poverty and the Social Dimensions of Structural Adjustment in Côte d'Ivoire, 1985-88: A Policy-Oriented Analysis" (RPO 675-26). Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Elena Vitanov, room J2-241, extension 38400 (January 1993, 21 pages).

Grootaert and Kanbur report on an exercise in economic statistics. They develop a regional price index for Côte d'Ivoire building on the strengths of two independent data sources: the Côte d'Ivoire Living Standards Survey (CILSS) and the International Comparisons Project (ICP).

The CILSS collected detailed information on household incomes, spending, employment, and so on, but its coverage of prices left much to be desired. The ICP collected a wealth of information on prices across the country, but collected no information on household spending patterns or other socioeconomic data.

Grootaert and Kanbur bring together these two sources to produce a regional price index that they argue is superior to previous estimates based solely on the Living Standards Survey. The procedures they follow should be of interest to practitioners faced with similar data shortcomings, particularly when working on Africa.

They show this to be no mere statistical exercise. Using the new price index can have a significant effect on earlier evaluations of poverty in Côte d'Ivoire. They also use the new price information to construct disaggregated indices by commodity category and by poverty group.

Poverty and Social Policy Division
Technical Department
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A NEW REGIONAL PRICE INDEX FOR COTE D'IVOIRE USING DATA FROM THE INTERNATIONAL COMPARISONS PROJECT

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This paper is an output of the research project "Poverty and Social Dimensions of Structural Adjustment in Cote d'Ivoire, 1985-88 — A Policy-Oriented Analysis" RPO 675-26). The authors would like to thank Philippe Callier and Jean-Luc Dubois for helpful comments on an earlier draft, and Meera Venkataraman and Gi-Taik Oh for excellent computer programming and general analytic assistance.

1. Introduction

The theory of cost of living indices is now well established. Text books such as that by Deaton and Muellbauer (1980) give an account of the concepts and principles involved in the theoretically ideal price index, and how these link to the standard usage of the Laspeyres and Paasche indices. In practice, application of this theory requires information on prices and on expenditures for the households whose standard of living is to be evaluated, and this is where the problems begin. The information base in many developing countries, especially in Africa, is such that we do not have a sufficiently broad based coverage of prices and expenditures for households in the country. The Consumer Price Index (CPI) for many countries is based on prices and expenditure patterns of the capital city only, or of urban areas. Rural areas are not covered in any systematic way. While inadequate at the best of times, these indices are particularly inappropriate at a time of structural adjustment policies, whose whole raison d'être is to alter price relativities, most of which have a significant effect on rural households.

This paper reports on an exercise in economic statistics -- an attempt to estimate a regional price index for Côte d'Ivoire using the strengths of two independent data sources. The two sources are the Côte d'Ivoire Living Standards Survey (henceforth CILSS) and the International Comparisons Project (henceforth ICP). The CILSS has revolutionized the analysis of household behavior in Côte d'Ivoire because of the detailed information it provides on household incomes, expenditures, employment, and other socio-economic characteristics, but, as we shall see, the price data it provides leaves much to be desired. The ICP provides a more detailed account of regional variation in prices than any other source for Côte d'Ivoire, but does not have any data on expenditure patterns or other socio-economic variables.

The story of this paper is the story of how we set about combining these two sources to produce a regional price index which we would argue to be superior to earlier estimates for Côte d'Ivoire. The account will be of interest to those who are struggling to combine

different sources of information on prices and expenditures, particularly for Africa. It will also highlight the value of ICP data for this purpose. However, we show that this is no mere statistical exercise -- previous evaluations of poverty in Côte d'Ivoire are affected significantly by the use of our new regional price index.

2. The CPI and Previous Regional Price Indices in Côte d'Ivoire

Côte d'Ivoire has traditionally compiled two different CPI series: one for African households and one for European households. Since 1985, a further disaggregation has become available for the former, based on the occupation of the head of household — the series is now available for "workers and traditional craftsmen" and for "professional and managerial occupations." However, while even this disaggregation is not available in most African countries, this CPI — like many others in Africa — is inadequate because its coverage excludes rural households. Even for urban households, the data cover only Abidjan and four main cities. In particular, therefore, this information base cannot be used to construct a regional price index.

The construction of a regional cost of living index requires information on prices and on expenditure patterns across the country. With this information, a common operational procedure is to construct a Paasche cost of living index:

$$C(p^X, p^A; q^X) = \frac{p^X q^X}{p^A q^X}$$

where X is the region under consideration, A is the reference region, p is the price vector and q is the quantity vector. As is well known, dividing nominal expenditures in a region by this index will give the consumption basket of that region evaluated at the prices of the reference region.

The Côte d'Ivoire Living Standards Survey was designed to collect information on expenditure patterns, and a host of other socio-economic variables, for a nationally representative sample of households (for a detailed description of the survey, see Grootaert, 1986). It therefore satisfies one of the informational requirements for the construction of a regional price index. However, the price data that it collects, while national in coverage, do not have adequate commodity coverage. Glewwe (1990) gives an excellent account of the problems to which this gives rise:

> "The price data were recorded on a separate price questionnaire which was administered in the local markets of the sampling areas from which CILSS households were drawn. Prices were obtained for 18 food items and 4 non-food items... The prices of the four non-food items (domestic cloth, plastic sandals, enamel bowl and menthol) varied widely, and further investigation led to the conclusion that [they were] unusable for the construction of a price index... Since variation in the price of non-food items is largely due to transportation costs, it seemed advisable to use some of the food items which were relatively non-perishable and found throughout the country. The only food item to meet these criteria was canned tomato paste. Thus the price of cans of tomato paste are used as a proxy for the prices of non-food items."

The Glewwe index was used by Glewwe (1987, 1990), and by Kanbur (1990) to analyze poverty and welfare in Côte d'Ivoire. The problems with the index should be obvious. A more recent attempt to derive a regional price index (McKay, 1992) addresses the problem by simply excluding non-food items and restricting attention to only food items, which is hardly a satisfactory solution.

The basic problem is thus the inadequate commodity coverage of prices in the CILSS. The only way to resolve this problem is to have access to a data base with adequate geographical and commodity coverage of prices. The ICP data base makes this possible and we turn to that now.

3. ICP Data and an Alternative Regional Price Index

Data collection for the International Comparisons Project was carried out in Côte d'Ivoire in 1985 (Eurostat, 1989). The localities for the price collection were selected on the basis of the same sampling frame as the CILSS (although of course the localities selected in the final sample were not necessarily the same). Price collection covered both urban and rural areas in all major regions of the country (East Forest, West Forest, Savannah). In total well over 20,000 prices were collected covering 912 product codes. The first challenge in using these data was to establish a correspondence chart between those product codes and the expenditure categories distinguished in the CILSS. This correspondence chart is shown in Annex I.

A characteristic feature of ICP data collection is the very specific and well defined product descriptions. This is necessary in order to ensure the international comparability needed for the project. The drawback for local use of the data is that not all items will be found in all parts of the country. For the purposes of establishing a within-country regional price index it is clearly necessary that the same product is found in all regions which need to be distinguished. This reduced the number of ICP prices which were available for our purposes. Nevertheless a total of 260 product categories were used to calculate the regional price index and these were matched with 27 food categories and 25 non-food categories derived from the CILSS. The detailed expenditure shares derived from the CILSS over these categories are shown in Annex II.

Two restrictions slightly hampered our use of the ICP data. First, very few non-food items were available for rural Savannah. We made the assumption that in view of the low population density in the Savannah, many non-food items would only be available in the urban centers of the region, and therefore we used the urban Savannah prices to impute values for rural Savannah for these products. Second, there were a few products which we felt were important representatives for a given expenditure category but for which prices were not available in all regions. In this case some imputations were made: for example,

if rural West Forest prices were not available, we imputed them on the basis of rural East Forest prices. This type of imputation affected only a very small number of prices.

After having established the correspondence chart and the price ratios between the regions and Abidjan, a visual inspection of these ratios was conducted and a small number of individual prices were omitted because they appeared to be outlying or erroneously recorded values. In most cases this could be traced to the use of units which differed from the reference product description.

The new resulting regional price index (N)is shown in Table 1 with Abidjan set equal to 100. For purposes of comparison we have reproduced the Glewwe (G) and McKay (M) indices discussed in the previous section.

Table 1: Regional Price Indices, 1985

	N	G	M
Abidjan	100.0	100.0	100.0
Other Cities	92.8	86.7	70.2
East Forest	87.0	84.0	65.5
West Forest	78.2	81.8	61.2
Savannah	76.0	85.1	54.0

Note, first of all, that the differences between the Glewwe and the McKay indexes are striking. Glewwe finds no more than an 18 percent price difference with Abidjan in any region, while McKay finds price differences of 30 percent or more in all regions, reaching almost 50 percent in the case of the Savannah region. It seems reasonable to assume that the McKay index overestimates regional price differences by relying only on food items. Indeed, in Côte d'Ivoire many food items are locally produced in the rural areas and are henceforth more likely to be more expensive in the cities (because of transport costs.) On

the other hand, many non-food items are either imported or produced in Abidjan and are thus more likely to be more expensive in rural areas. An index relying only on food prices would therefore overestimate price differences and hence underestimate regional welfare differences.

With the new index, N, the figures show that prices in other urban areas are on the average about 8 percent below those in Abidjan. In rural areas, price differences are greater with the biggest difference being recorded for the Savannah — about 25 percent below Abidjan. The figures of the N index thus confirm, by and large, our suspicion that the G index would tend to underestimate urban-rural price differences, while the M index would tend to overestimate them. In any event, the comprehensive commodity coverage of the N index give us greater confidence in its validity.

But does all this make a difference? A major use to which the regional price index has been put is in the calculation of real household expenditures and, thence, in the calculation of poverty. The next section investigates alternative estimates of poverty with the N, G and M regional prices indices.

4. Implications for Poverty Estimation

This is not the appropriate place to go into the details of how poverty is measured at a conceptual level, or the problems with operationalizing measures of the "standard of living" from household income and expenditure surveys (see Kanbur, 1987). Suffice it to say that a common procedure for measuring the standard of living for an individual is to take the real per capita expenditure (with suitable imputation for items such as home produced consumption) of the household in which he or she lives. When a single snapshot is being considered, the term "real" refers to adjustments of nominal expenditure by a regional price index. There is also the vexed question of what poverty line to choose. All these questions are discussed further in the literature and, in the context of Côte d'Ivoire, in Grootaert (1992). The poverty line chosen there is 128,600 CFAF per person per annum in 1985

Abidjan prices. The question we wish to tackle is this — how is the estimated pattern of poverty affected by the use of different regional price indices.

Table 2 shows average nominal household expenditure per capita for each of the regions in Côte d'Ivoire and these values deflated with the N, G and M indices. For the country as a whole, average real expenditure per capita is very close when using the N and G indices, but the M index leads to a 23 percent overestimate. However, larger differences are revealed in the estimates by region and by socio-economic group. The Glewwe index leads to underestimates for West Forest and Savannah and for food-crop farmers (who are concentrated in Savannah). Real expenditures for other groups and regions are slightly overestimated (by 1% to 7%). In contrast, the McKay index leads to a significant overestimation of expenditure in all regions, but mostly so in Savannah (41%). Among the socio-economic groups, the overestimation is most pronounced for food-crop farmers (34%) and export-crop farmers (31%). Among the mostly urban-based groups, the overestimate is in the order of 10-20 percent (except for the unemployed). The omission of non-food items in the M price index thus leads to a major bias in estimated real household expenditure per capita at the national level and to a distortion of regional and socio-economic patterns.

It stands to reason that any poverty index based on household expenditure will similarly be affected by the choice of cost-of-living index. In Table 3, we show three poverty indices derived from the P-α class of measures (Foster, Greer and Thorbecke, 1984), given by

$$P_\alpha = \frac{1}{n} \sum_{i=1}^{q} \left(\frac{Y_p - Y_i}{Y_i} \right)^\alpha$$

where n is the population size, q is the number of people below the poverty line (Y_p) and Y_i ($i = 1,\ldots, q$) are the expenditures of the poor. α is a parameter reflecting sensitivity to

Table 2: Household Expenditure Per Capita deflated with Alternative Regional Price Indices

	Nominal	N	G	G/N	M	M/N
Abidjan	376,108	376,108	376,108	1.00	376,108	1.00
Other Cities	252,387	271,864	291,104	1.07	359,526	1.32
East Forest	143,104	164,472	170,362	1.04	218,479	1.33
West Forest	187,120	239,134	228,753	0.96	305,751	1.28
Savannah	115,910	152,573	136,204	0.89	214,648	1.41
Export Crop Farmers	162,761	194,418	194,371	1.00	254,312	1.31
Food Crop Farmers	139,209	171,802	165,692	0.96	230,656	1.34
Public Sector Employees	412,795	431,171	445,083	1.03	503,620	1.17
Formal Private Sector Employees	354,478	364,835	371,294	1.02	403,111	1.10
Informal Private Sector Employees	220,088	230,593	236,341	1.02	265,560	1.15
Self-Employed	219,258	234,910	239,728	1.02	279,657	1.19
Inactive	242,515	253,049	257,824	1.02	287,152	1.13
Unemployed	303,553	306,624	309,658	1.01	320,447	1.04
Côte d'Ivoire	213,634	237,853	238,389	1.00	291,799	1.23

poverty. For $\alpha = 0$, the index is simply the head-count ratio (H = q/n). With $\alpha = 1$, the index becomes HI where I is the expenditure gap ratio:

$$I = \frac{1}{q} \sum_{i=1}^{q} \left(\frac{Y_p - Y_i}{Y_i} \right)$$

With the N index, the incidence of poverty in Côte d'Ivoire is estimated at 30 percent in 1985. Even though the G index led to slightly higher average real household expenditure per capita, it affected the distribution so that estimated poverty was higher (this is true for P_0, P_1 and P_2). While at the national level, the difference is marginal, the regional and socio-economic pattern of poverty is affected more. For example, the G index underestimates poverty (P_0) in urban areas other than Abidjan by 14 percent and overestimates it in Savannah by 13 percent. This bias is not necessarily constant over poverty measures. For example, P_2 in Savannah is overestimated by 26 percent. In general, the use of the G index leads to an underestimation of urban poverty and an overestimation of rural poverty.

Not surprisingly, the M index displays much larger biases in estimated poverty than the G index. The incidence of poverty in Côte d'Ivoire is estimated at only 17.6 percent - 41 percent less than the incidence estimated with the N index. The difference even widens when P_1 and P_2 are considered. Clearly, the M index yields a falsely optimistic picture of poverty in Côte d'Ivoire. Regional and socio-economic patterns also differ widely. For example, the M index estimates poverty in West Forest at only 6.2 percent, while in reality it is 17.8 percent. It yields P_0 of 14.7 percent for export crop farmers, while according to the N index it is 36.6 percent.

Such differences in poverty estimates can obviously have a profound impact on policy decisions regarding the need for poverty alleviation interventions, where they should be targeted, and what amount of resources is required. The main lesson from this exercise is thus that what may appear as a relatively simple academic choice — how to treat prices of non-food items in a price index — can have a major impact on estimates of poverty which could be the basis for important policy decisions.

Table 3

Poverty Measures based on Alternative Price Indices

	P_0			P_1			P_2		
	N	G	M	N	G	M	N	G	M
Abidjan	.034	.034	.034	.009	.009	.009	.004	.004	.004
Other Cities	.236	.204	.119	.075	.064	.042	.037	.033	.022
East Forest	.479	.463	.285	.155	.144	.076	.069	.063	.032
West Forest	.178	.214	.062	.036	.043	.015	.013	.015	.006
Savannah	.502	.591	.322	.183	.221	.093	.088	.111	.037
⋮									
Export Crop Farmers	.366	.366	.147	.094	.095	.042	.038	.039	.015
Food Crop Farmers	.434	.468	.263	.144	.156	.071	.065	.072	.028
Public Sector Employees	.049	.038	.003	.007	.004	.001	.001	.001	.000
Formal Private Sector Employees	.071	.070	.023	.014	.012	.005	.005	.004	.002
Informal Private Sector Employees	.262	.225	.225	.075	.069	.037	.028	.024	.008
Self-Employed	.262	.260	.185	.104	.103	.067	.058	.058	.038
Inactive	.183	.191	.152	.075	.072	.053	.043	.040	.030
Unemployed	.041	.041	.041	.005	.005	.005	.001	.001	.001
Côte d'Ivoire	.300	.314	.176	.098	.102	.050	.045	.048	.022

5. Disaggregated Price Indices

For certain policy purposes it may be useful to have a price index available which only covers a sub-set of the consumption basket (for example, food or non-food only) or which covers the entire basket but pertains only to certain groups of households (for example, farmers or the poor). The detailed price information in the ICP data in

combination with the detailed expenditure shares available from the CILSS made it possible to construct such disaggregated price indices. In this section we show some examples.

Perhaps the most useful breakdown of the consumption basket is between food and non-food. This is relevant for poverty analysis, in view of Engel's law. Also, in developing countries many food items are subsidized — and those subsidies often need to be eliminated under structural adjustment programmes. To address nutritional concerns a further breakdown according to types of food is also useful. Table 4 shows regional price indices for 3 food categories and 5 non-food categories. It needs to be pointed out that conceptually such disaggregation requires the assumption that consumer preferences are separable, i.e. that prices of items outside the sub-index do not affect the consumption of items included in the sub-index (see Deaton and Muellbauer, 1980). Clearly, this assumption becomes less tenable the finer the disaggregation.

Table 4 shows that in general food items display a wider regional price variation than non-food items. Food is significantly cheaper in rural areas than in Abidjan, and more so than is the case for non-food. Several non-food categories are in fact more expensive in some rural areas than in Abidjan. This directly confirms our hypothesis stated in section 3 that the omission of non-food prices in a price index (as was the case for the McKay index) will result in over-estimation of regional price differences.

In the context of structural adjustment, the distinction between tradeable and non-tradeable goods and services is important since adjustment programs aim to change relative prices in favor of tradeables (World Bank, 1990). Table 4 also shows the regional price index for food and non-food items, broken down according to their tradeability. For food items, there is no systematic pattern: in some regions the price differential of tradeable food exceeds that of non-tradeable food, but in other regions it is the reverse. Tradeable non-food items however are systematically priced lower in rural areas than in Abidjan, with the biggest differential in East Forest and Savannah. Non-tradeable non-food items are priced

the same or higher in rural areas than in Abidjan (except in Savannah). This may reflect higher production costs for these items in rural areas.

Table 4: Regional Price Index by Expenditure Category

	Abidjan	Other Cities	East Forest	West Forest	Savannah
Food	100.0	86.7	85.5	66.7	72.6
- grains & bread	100.0	96.6	111.1	74.4	64.8
- roots & vegetables	100.0	75.4	82.7	43.1	82.1
- other food	100.0	88.6	80.9	87.2	71.6
Non-Food	100.0	99.8	89.2	101.9	87.6
- clothing	100.0	105.8	80.2	106.2	66.0
- home & furniture	100.0	93.9	106.4	92.9	79.1
- transport & communications	100.0	108.3	76.2	114.4	109.6
- education & health	100.0	89.4	116.2	99.6	79.1
- other non-food	100.0	95.4	100.2	90.4	90.4
Tradeable Food	100.0	86.2	104.8	76.1	62.6
Non-Tradeable Food	100.0	87.0	80.8	62.5	79.6
Tradeable Non-Food	100.0	99.8	79.5	97.8	84.8
Non-Tradeable Non-Food	100.0	99.9	115.5	110.4	94.7

As we mentioned earlier, the Government of Côte d'Ivoire produces two series for the CPI, depending upon the type of occupation of the head of household. This reflects the existence of differences in expenditure patterns across socio-economic categories in the population. With the CILSS, it is possible to distinguish more than two groups. Table 5 shows the cost-of-living index recalculated for eight socio-economic groups, taking into account the expenditure pattern of each group. In general, the differences are fairly minor (at least, if one ignores the cells with a small number of observations). The main differences are that the regional cost-of-living differential appears somewhat larger for farmers. The other groups, which are primarily urban based, display smaller regional variations.

Especially employees in the formal sector, both private and public, have smaller than average cost-of-living differences between Abidjan and other cities.

The data also permit to calculate a cost-of-living index by poverty status, and here the differences are more pronounced (Table 5). Between Abidjan and other cities, the cost-of-living differential narrows with rising total expenditure: for the very poor it is 14%, while for the non-poor it is only 7%. In contrast, in the rural areas, the differential widens with rising expenditure: for example, in West Forest the price differential for the very poor is 7%, but for the non-poor it is 12%. This implies that the very poor — who are mostly located in rural areas — fail to benefit from the lower cost of living in rural areas as much as other groups. This also means that the deflation of expenditures (or income) with a single index will underestimate real expenditure levels for urban poor and overestimate those of rural poor. By implication, if real expenditure are used as a welfare measure to estimate poverty (as we have done earlier in this paper), the simple index will overestimate urban poverty and underestimate rural poverty.

The cost-of-living differences reflected in Table 5 are of course only those due to different expenditure patterns across groups. The ICP data permit to estimate regional price differences only on an average basis, since the prices are collected from selected points of sale without taking into account the characteristics of actual purchasers. There could be further cost-of-living differences if unit prices differ systematically across socio-economic or poverty groups. In particular, it has been argued that the poor pay higher prices than the non-poor for many food items because they have to buy in small quantities. Also, price differences may occur if the poor and non-poor buy at different types of outlets or markets, and if there is systematic price variation across these. Such differences cannot readily be captured by conventional price data collection, but are best relegated to household surveys. Questions on actually paid prices can then be related to the household's socio-economic characteristics captures in the survey.

Table 5: Cost-of-Living Index differentiated by Socio-Economic Group and Poverty Status

	Abidjan	Other Cities	East Forest	West Forest	Savannah
Export Crop Farmers	(100.0)	88.0	87.4	78.2	70.2
Food Crop Farmers	(100.0)	88.9	87.8	76.7	75.6
Public Sector Employees	100.0	93.7	83.7	(96.5)	(80.1)
Formal Private Sector Employees	100.0	94.6	(88.8)	(84.0)	(77.5)
Informal Private Sector Employees	100.0	92.7	(81.3)	(75.0)	(118.1)
Self-Employed	100.0	93.1	83.2	85.4	80.6
Unemployed	100.0	(97.7)	-	-	-
Inactive	100.0	92.3	88.2	(83.5)	(79.5)
Very Poor	100.0	86.3	99.7	93.1	77.0
Mid-Poor	100.0	90.9	89.7	78.3	76.1
Non-Poor	100.0	93.1	85.9	78.1	75.8
Côte d'Ivoire	100.0	92.8	87.0	78.2	76.0

Note: The very poor are the bottom decile of individuals ranked by per capita expenditure, and the mid-poor are the 2nd and 3rd decile. Numbers in parentheses indicate cells with less than 10 observations.

6. Conclusion

Regional price variations can make a big difference to estimates of poverty. It is important, therefore, that analysts use the best and most comprehensive combinations of available information sets in constructing these indices. We have shown how the CILSS and

the ICP can be combined to produce a regional price index that is superior in terms of coverage than previous indices. And we have shown that this is no mere statistical exercise — estimates of the levels and patterns of poverty are altered significantly when the improved index is used.

Annex 1:

Correspondence Chart
CILSS Expenditure Categories and ICP Product Codes

CILSS Expenditure Category	ICP Product Description	CILSS Expenditure Category	ICP Product Description
1. Food and beverages consumed away from home and take-out food	Meal local restaurant Meal food kiosk/hawker Ricard in a bar Beer in a cafe Breakfast in worker's cafeteria	12. Children clothing	Boys' jeans Boys' short Boys' t-shirt monochrome Boys' t-shirt printed Zip fastener
2. Cigarettes, tobacco and cola nuts	Cigarettes dark tobacco Cigarettes light tobacco Marlboro Kola nut	13. Purchase of cars, bikes & other transport	Renault R4 L Renault R5 GTL Renault R9 GTL Renault R9 GTC Mazda 323 Peugeot 305 normal Peugeot 305 GR Peugeot 505 GL Peugeot 505 GL diesel Peugeot 504 normal Toyota Corolla 1300 L Toyota Corolla GL Toyota Corolla GLS Toyota Corolla 2000 GLE Toyota Corolla 1800 XL Nissan Sunny 1-3 std Nissan Sunny 1-3 DX Fiat Panda 45 Fiat Uno 55 Bicycle ladies' town Bicycle men's town, Raleigh Bicycle men's town other makes Motor cycle Peugeot 153 LSX Motor cycle Peugeot 103 SPB Motor cycle Motoconfort Motor cycle Yamaha Motor cycle Suzuki Motor cycle Honda 185 S Motor cycle Honda 125 S Motor cycle Honda CG 125 Motor cycle Suzuki A 100 Motor cycle Suzuki TS 125 Motor cycle Yamaha YB 100
3. Commercial or home-made soap	Household soap 72% Household soap 72% 650-800 g Household soap 60%		
4. Other personal care & health products	Hairdresser w/o own establishment Toothbrush European comb Razor blades		
5. Home Maintenance Products (brooms, detergents, toilet paper, etc.)	Toilet tissue Washing powder packet 100 g. Bleach Javel Lacroix		
6. Charcoal	Domestic charcoal		
7. Wood	Firewood		
8. Other fuel for cooking, lighting	Paraffin		
9. Shoes	Men's boots Ladies' plastic shoes		
10. Fabric for clothing	Fabric wax print Fabric wax block monochrome		
11. Adult clothing	Men's brief 100% cotton Men's br. 2/3 polyamide 1/3 cotton Women's brief 100% cotton Brassiere Men's handkerchief Women's handkerchief		

Annex 1:

Correspondence Chart
CILSS Expenditure Categories and ICP Product Codes

CILSS Expenditure Category	ICP Product Description	CILSS Expenditure Category	ICP Product Description
14. Car repair and other expenses (gasoline, motor oil, etc.)	Motor bicycle tire Peugeot	14. (cont.)	Replace brake linings/pads official dealer
	Bicycle tube		Replace brake linings/pads not official dealer
	Motor bicycle tire Suzuki		
	Car tire Michelin 165 SR 13	15. Public transport, taxis, etc.	Taxi journey
	Car tire 175 SR 14		Collective taxi journey
	Car tire 175 SR 14 retread		Bus journey minimum fare
	Car tire 165 SR 13		Bus journey maximum fare
	Car tire 165 SR 13 retread		Bus fare student
	Car tire 155 SR 14		Bus fare adult
	Car tire 155 SR 14 retread		Informal sector journey 4 km
	Car tire 155 SR 13		Train journey 2nd class
	Car tire 155 SR 13 retread		Rail journey express
	Motor cycle tire 2.75		Train journey round trip
	Motor cycle tire 2.60		Bus journey
	Motor cycle tire 3.50		Journey by motorcoach
	Motor cycle tire 4.10		Journey by car or station wagon
	Battery locally manufactured 30ah		Journey by mini bus
	Battery locally manufactured 45ah	16. Home expenses (repairs, painting, insurance, etc.)	Portland cement
	Imported battery 38ah		Painting of room w/whitewash
	Imported battery 44a.m.		Repair of a house roof
	Sparking plug Champion		Replacement of top formica
	Sparking plug Bosch		
	Brake cable	17. Education expenses	School fees nursery
	Tire tube 175 SR 14		School fees Koran
	Tire tube 165 SR 13		School fees private vocational
	Tire tube 155 SR 14		School fees private primary
	Tire tube 155 sr 13		School fees private secondary
	Distributor points r4 1		Exercise book
	Distributor points r9 gtl		Pencil ordinary
	Distributor points mazda 323		Ruler
	Oil change & greasing official dealer	18. Medical expenses	Aspirin upsa
	Oil change & greasing not official dealer		Flavoquine 12 tablets
	Replace water pump official dealer		Nivaquine
	Replace water pump not official dealer		T A O
	Replace shock absorbers official dealer		Mercurochrome bottle 20-30 ml
	Replace shock absorbers not official dealer		Mercurochrome bottle 125 ml
	Engine tuning official dealer		
	Engine tuning not official dealer		

Annex 1:

Correspondence Chart
CILSS Expenditure Categories and ICP Product Codes

CILSS Expenditure Category	ICP Product Description
19. Kitchen tools (cups, forks, plates, saucepans, etc.)	Tumblers
	Soup plate
	Saucepan
	Knife
	Soup spoon
20. Furniture (beds, tables, cupboards, chairs, rugs, etc.)	Mattress 190x140 - low density
	Mattress without springs
	Ordinary chair
21. Linen (sheets, towels, blankets, etc.)	Bed sheet polyester
	Bed sheet 100% cotton
	Hand towel
	Bath towel
22. Envelopes, writing paper, stamps	Ordinary envelopes
	Notepaper pad
23. Telephone, telegram, etc.	Telephone call public tel. box
	Telephone call subscriber
	Monthly rental of one telephone
	Telephone calls
	Telegram
24. Jewelry, watches	Gold ring 18 carat
	Gold ring 14 carat
	Men's wrist watch
	Men's digital wrist watch
	Watch maintenance
25. Entertainment (novels, newspapers, cinema, sports, records, tapes, toys, etc.)	Gramophone record
	Gramophone record pop music
	Unrecorded cassette 60 min.
	Unrecorded cassette 90 min.
	Unrecorded cassette other brands
	Tennis balls
	Building set ref. No. 10
	Building set ref. No. 045
25. (cont.)	Bag of marbles
	Children's ball
	Film black and white
	Film color 20 exposures
	Film color 36 exposures
	Slides
	Services color TV technician
	Sports ground
	Photographic development and printing
	Novel detective
	Novel not detective
	Newspaper
	Magazine weekly
	Magazine monthly
26. Rice	Long grained rice loose
	100% broken rice
27. Maize (cob, grain or flour)	Yellow maize
	White maize
28. Millet, fonio, sorghum (grain or flour)	Sorghum
	Small millet souna variety
	Small millet sagno variety
29. Bread	Fresh bread
	Fresh bread baguette type
30. Cassava	Cassava fresh
	Cassava dried
31. Macaroni	Spaghetti prepacked 500 g
	Spaghetti prepacked 250 g
	Egg noodles 500 g
	Macaroni
32. Cookies and cake	Biscuits sweet tea
	Biscuits marie

Annex 1:

Correspondence Chart
CILSS Expenditure Categories and ICP Product Codes

CILSS Expenditure Category	ICP Product Description	CILSS Expenditure Category	ICP Product Description
33. Yam	Yams fresh	45. Sugar, candy, honey, sugarcane	Sugar cubes cardboard packet Sugar cubes 10 lumps Sugar refined white granulated in cellophane Acid fruit drops prepacked Chewing gum Wrigley Chewing gum other makes
34. Plantain (raw or flour)	Plantain Plantain green		
35. Taro, sweet potato, potato	Taro (cocoyam) Sweet potatoes fresh	46. Salt	Salt coarse kitchen
36. Peanuts (roasted, raw or butter) and palmnuts	Peanut butter Ground-nuts dry roasted shelled	47. Alcoholic beverages	Wine red bottle 1 litre Beer Guinness Beer local other
37. Other grains and nuts (avocado, coconut, nere, ouleoule, etc.) fresh/dried	Avocado Coconut without topshell	48. Non-alcoholic beverages (tea, coffee, soft drinks, bouillon, etc.)	Ginger Juice Coffee beans roasted robusta Coffee soluble instant Tea black prepacked 20 bags Tea black prepacked 100 bags Natural mineral water Soda water Fanta orange bottle 33 cl
38. Fish and shellfish	Crabs Herring		
39. Chicken, duck, pigeon, turkey or other poultry	Live local chicken		
40. Beef, mutton, goat, pork, other domesticated meat	Beef fresh with bone with offal Beef fresh with bone no offal Ox feet fresh Beef tripes and offal	49. Tomato paste	Tomato puree 70 g
		50. Leafy and other vegetables	Okra fresh Egg plant green fresh
41. Eggs	Chicken eggs commercial fresh		
42. Palm oil, shea butter, and other oils	Palm oil unrefined Palm oil refined loose Shea nut butter	51. Milk products	Milk sterilized homogenized long life Milk powdered skimmed 450 g Milk sweetened condensed
43. Butter, margarine	Margarine	52. Other foods	[average of all food items]
44. Fruit	Lemon Bananas Mango not grafted		

Annex 2:
Detailed Expenditure Shares (%) used in Calculating Regional Price Index (1985)

CILSS Category	Abidjan	Other Cities	East Forest	West Forest	Savannah
1.	.05995	.05109	.03024	.04609	.02599
2.	.01145	.01284	.01409	.01705	.01698
3.	.02211	.02494	.02149	.01844	.02242
4.	.00659	.00847	.00347	.00362	.00288
5.	.00351	.00467	.00071	.00036	.00053
6.	.02188	.01259	.00160	.00030	.00000
7.	.00611	.01424	.00241	.00072	.00011
8.	.01262	.01231	.01822	.01755	.02185
9.	.05416	.08392	.03954	.01367	.02941
10.	.02623	.02243	.02238	.03228	.01619
11.	.06637	.07335	.08325	.10844	.02402
12.	.00755	.01044	.00839	.01148	.00509
13.	.01326	.01476	.02178	.01491	.00522
14.	.00000	.00289	.01016	.00358	.02646
15.	.05665	.05174	.04356	.05279	.04057
16.	.01215	.00875	.02005	.02082	.00892
17.	.05751	.05392	.04510	.02534	.01451
18.	.04980	.03694	.03046	.04693	.01432
19.	.00875	.00796	.00766	.01030	.00489
20.	.00388	.01098	.00452	.00602	.00000
21.	.00787	.01129	.01082	.00799	.00323
22.	.00152	.00314	.00204	.00244	.00117
23.	.00613	.00236	.00101	.00138	.00007
24.	.00985	.00685	.00251	.00917	.00069
25.	.00948	.00926	.00146	.00185	.00053
26.	.04968	.06292	.05963	.11620	.10184
27.	.00733	.01291	.02194	.02521	.07456
28.	.00261	.00177	.00001	.00018	.02465
29.	.02310	.02028	.01435	.01468	.01398
30.	.02270	.02609	.04252	.06390	.04269
31.	.00295	.00159	.00078	.00097	.00052
32.	.00387	.00585	.00534	.00906	.01083
33.	.01628	.03059	.08399	.01967	.14410
34.	.02353	.02571	.06037	.03213	.01290
35.	.00416	.00335	.01633	.00723	.01652
36.	.02103	.01844	.01477	.02081	.03739
37.	.00241	.00210	.00103	.00048	.00078
38.	.06340	.05813	.06899	.05949	.05297
39.	.01861	.01908	.02845	.03394	.02170
40.	.06759	.57540	.02245	.02539	.03366
41.	.00681	.00401	.00132	.00040	.00246
42.	.02100	.01771	.01646	.01472	.01807
43.	.00498	.00344	.00037	.00043	.00007
44.	.00948	.00516	.00467	.00830	.01582
45.	.00786	.00783	.00632	.00582	.01057
46.	.00173	.00237	.00480	.00393	.00553
47.	.01175	.01415	.02766	.02298	.02226
48.	.01881	.01539	.13333	.01184	.01104
49.	.00760	.00582	.00227	.00169	.00211
50.	.03195	.02221	.03250	.02314	.03580
51.	.01326	.00328	.00229	.00367	.00106
52.	.00017	.00013	.00013	.00021	.00006
	100%	100%	100%	100%	100%

Note: For CILSS Category description, see annex 1

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